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SPE NEWS

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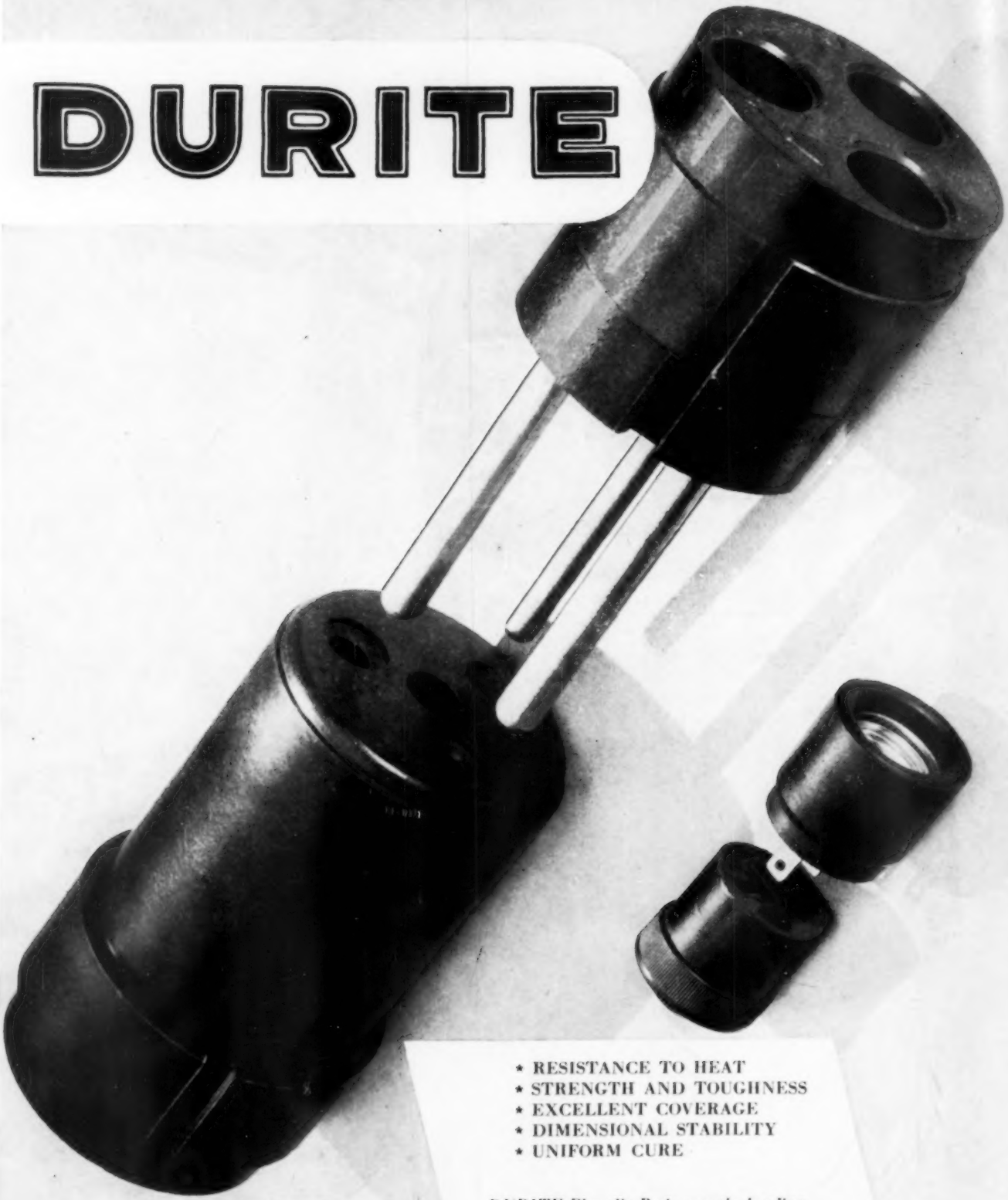

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SPE NEWS

Issued Monthly to all Members of the Society of Plastics Engineers

Volume 4 **Number 9**

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This issue sponsored by

Central Ohio, Miami Valley and Toledo Sections

TRAVELERS

A good many SPE members find it necessary to travel about the country from time to time. Not only is it a good idea for them to attend SPE meetings at any section they are near, but also to consider themselves as very welcome speakers. For example the New Orleans and North and South Texas Sections, are eager to contact prospective speakers. For meeting places and dates, see the announcements in the SPE News. Or contact, in New Orleans, Paul F. Oswald, 123 Lake Ave., Southport, New Orleans. For North Texas, write Harris Brin, Box 9521, Dallas, Texas; and for South Texas, M. A. Arthur, Humble Oil Co., 209 Humble Bldg., Houston, Texas. These sections will be happy to have you attend their meetings, and appreciate your offering to speak on the program.

For callers in Mexico, plan to attend the meetings in Mexico City; contact Rafael Quijano, Aptdo 1138, Mexico, D.F. Don't be afraid of language difficulties here, as nearly all members speak English quite well.

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MIAMI VALLEY SECTION

Directors and officers of the Miami Valley Section gather to discuss plans for future S.P.E. activities. The above are W. F. Oelman, C. M Jensen, B C. Stupp, J. L. Russell, Secretary; G. J Wilson, President; and H J Kasch, Jr. Councilman.

PLASTICS IN THE MIAMI VALLEY AREA

Plastics activity in the Miami Valley area centers around the tooling and molding operations, which are conducted on various levels, from the small job shop to the larger industrial and custom molders. Since Dayton and Cincinnati, the focal points of the plastics industry in the Miami Valley, are both large industrial centers prominent in machine and tool and die work, it is not surprising that there is little chemical industry concerned with the manufacture of basic raw materials.

The majority of these companies have facilities for molding, either compression or injection or both, and machine shops to complement the press operations. A few of the larger companies include Standard Molding Corp., specializing in injection custom molding. Kurz-Kasch, Inc., established in 1915, and presently employing about 400 for its compression custom molding requirements; and The Plastics Moldings Corporation, Cincinnati, molders of thermosetting materials for industrial uses. The F. & F. Mold and Die Works, Dayton, injection molders of premiums, housewares, and industrial uses is another of the companies that has found it advantageous to operate its own machine shop for quicker production, easier planning and closer control on finished parts. Recto Molded Products, Cincinnati, employs about 200 in its injection and compression departments producing industrial parts.

Companies in the Miami Valley area which specialize in fabrication are J. E. Barron and Associates, The Baxter Company, and Allied Plastic Products, all of Cincinnati.

Although there is only minor basic raw material manufacture in this district, representatives of Bakelite, Drackett, Durez, DuPont, Monsanto, Plaskon, and Tennessee-Eastman and other material supplier's maintain offices in the area.

The Cincinnati Milling Machine Company is an example of the equipment manufactures in this area. That company fabricates duplicating machines and related equipment for molds and dies.

The National Cash Register Company, Dayton, conducts production work on injection and compression moldings as well as some fabrication, all end products being used as parts in cash registers or business machines. Close control is maintained by rigid inspection and testing, both of the incoming materials and finished parts. The Plastics Development Laboratory has conducted experimental work leading to major changes in materials specifications, the adaption of the "double-injection" method for producing bi-colored key tips for cash registers, and the replacement of metals by plastics in various functonal parts.

HISTORY OF THE MIAMI VALLEY SECTION OF SPE

On November 29, 1943 in the Engineers' Club of Dayton, Ohio, a group of men gathered to discuss the merits of organizing a Plastics Group in Dayton. Those in attendance were: A. J. Barron, J. W. French, H. J. Kasch, Jr., M. V. Kemper, D. L. Meeker, J. L. Russell, B. C. Stupp, and G. W. Waite. After discussing other organizations in the country, it was decided to form a

(Please turn to page 6)

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PROFESSIONAL EDUCATION IN PLASTICS ENGINEERING

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The primary purpose of this brochure is to present an integrated program of professional engineering education in plastics, together with a sketch of the types of professional engineers required in industry and the opportunity thus open to educational institutions in preparing such men for professional careers.

With the hope that this plan may furnish specific guidance to educational institutions interested in establishing engineering courses in plastics and be of special interest to industry and to both practising and potential plastics engineers, the program is presented in considerable detail.

This plan is the result of a careful study undertaken by the Educational Committee of the Society of Plastics Engineers. This committee, composed equally of representatives from industry and engineering educators, represents a broad coverage of industrial and educational interests in polymeric materials. This has permitted a fair industrial appraisal of the professional needs of the industry and provides an educational group competent to integrate the industrial suggestions into a workable curriculum.

THE PROGRAM

The broad objectives of this program are instruction and research in the application, production, fabrication, processing, and basic properties of plastics as engineering materials. As will be shown, undergraduate instruction planned toward this end may serve a very definite and useful purpose in itself. However, the work begun at this level may be advantageously expanded to afford for a different purpose, an effective program of graduate study.

The scope of the program embraces all polymeric materials, whether fibrous, elastomeric, or resinous in character, and of either natural or synthetic origin. Within this field lie molded and cast products, laminates, plywood, films, filaments and textiles, adhesives and coatings. As may be anticipated this breadth of interests to be served within a reasonable time primarily limits a cretable educational program to instruction in fundamental principles rather than technical detail. This latter interest, properly the province of the vocational school, lies outside the field of professional engineering education. Similarly, but at the other end of the scale, excellent training in high polymer science is available in a number of high ranking institutions and is not the concern of an engineering curriculum. Between these limits lies an opportunity in engineering education for which this program was planned.

With the phenomenal growth of the plastics industry and the increasing field of application of plastics, it is most probable that the engineer of the future will have increasing contact with plastics as engineering materials. An early investigation of the manufacturing industries indicated that of various candidates of otherwise equivalent engineering training, the man with a supplementary knowledge of plastics would be favored for appointment. More specifically, within the plastics industry itself, there has been no source of engineers trained in the special field of plastics. This industry has depended upon self-training and extension courses for producing such men, usually at great expense to the industry. While the results have been moderately successful, it is believed that broad fundamental training at an educational source can be of much greater ultimate benefit to the individual and to industry. This program can provide both the plastics training required by the manufacturing industries in general and the specialized training needed for the plastics industry itself.

The program has been planned specifically for engineers, although chemists and physicists may also be accommodated. Further, the program as a whole has been planned to develop such men, either at the general or at the specialized level, along the lines of their natural aptitudes which originally led them to choose their engineering or science specialization. A mechanical engineer in plastics still needs to be primarily a good mechanical engineer; this applies equally well to other types.

This program currently recognizes a plastics engineer as "a professional engineer practising in the field of plastics". On this basis it is considered unwise to attempt to turn out individuals with completely uniform training. The program, however, does attempt to establish an optimum of standardization which, it is hoped, may become recognized as fundamental background training for plastics engineers in general, regardless of their particular aptitudes.

UNDERGRADUATE CURRICULUM

The professional engineering personnel of the manufacturing and processing industries, in most cases, are Bachelors of Engineering. These industries, not necessarily specializing in plastics, have a growing need for mechanical, electrical, chemical, and other engineers with a supplenmentary knowledge of plastic materials. Such supplementary knowledge is becoming increasingly important for assignments in develop-

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ment, design, and technical sales and service. The educational requirements for such men can be met by general introductory plastics courses offered optionally as an adjunct to their specialized departmental engineering courses.

Even a casual examination of current engineering curricula will show that where a sound training in engineering fundamentals is adhered to, there is no time for added specialization at this level; in fact, there is a growing tendency away from specialization in undergraduate education. In deference to this commendable trend, and in view of the industrial requirements, this program proposes that undergraduate engineering instruction in plastics be limited to:

1. Plastics Technology; an introductory lecture course.

2. Plastics Laboratory; a general laboratory course. These courses, optionally available to engineering and science seniors, are described in detail.

Inasmuch as the introductory course may be popularly elected by non-technical students, it may run to heavier enrollment than can be conveniently handled by a parallel laboratory course. As a means of technical preparation for the laboratory as well as of screening for the more desirable laboratory students, it appears advisable to schedule these in the order suggested.

GRADUATE CURRICULUM

In contrast to the undergraduate plan the graduate curriculum has been designed to provide the engineers required in the plastics industry itself. In requiring that candidates for admission must have a Bachelors Degree or equivalent in engineering or science, this curriculum leads to a Masters Degree in engineering. As mentioned previously, it is not the intent of this program to turn out individuals with completely uniform training, but rather to establish an optimum standard of uniformity from which the candidates may emerge to pursue their separate interests within the plastics field.

In correlating the results of a recent industrial poll, it was found that where instruction is restricted to principles rather than to job specialization, that a relatively few additional courses could suffice to provide a very creditable graduate curriculum in plastics. Moreover where appropriate graduate departments are already established, the graduate plastics curriculum may be developed through the addition of still fewer new courses, thus permitting, in one sense, a great deal to be accomplished with very little.

Louis F. Rahm

The essential graduate courses, may be summarized as follows:

3. **High Polymer Chemistry;** mechanism, kinetics, and thermodynamics of polymerization. This latter, although distinctly a science course is considered essential to this engineering program.
4. **Properties of Plastics:** correlating the composition and molecular structure of the materials with engineering properties, study of standard evaluation techniques and equipment.
5. **Chemical Engineering of High Polymers;** a study of the basic principles and unit operations involved in the production of plastic materials.
6. **Electrical Measurements;** a theoretical and practical study of electrical measuring equipment and oscillators over a wide frequency range.
7. **Plastic Design;** including specifications, application of materials, design of product and equipment.

It thus appears that the optimum standardization for a plastics engineer consists of the five foregoing graduate courses together with the two introductory courses. This needs some qualification and clarification, however. All engineering students do not approach the program with similar backgrounds, nor is it essential that they should. However, it is apparent that the graduate courses require a certain minimum of prerequisites. By the time these requirements are met for each type of engineering student, it will be found that the seven courses mentioned will be augmented by perhaps three additional prerequisites.

In addition to the foregoing, some training in fundamental research is considered essential to a well rounded program, and should be required. This work, invaluable training in itself, provides indispensable experience for those men who may continue in research in plastics.

Augmenting the prescribed instruction, plant inspection trips and guest lecturers should be included. It is believed that these extra-curricular activities may most appropriately supplement the graduate curriculum, and be more acceptable on an informal basis than if prescribed.

ORGANIZATION

From the foregoing it is apparent that an engineering program in plastics may be developed in an institution having established and appropriate graduate work, with very little in the way of new courses and added staff. In any case it is equally apparent that such an effort must be a cooperative interdepartmental venture based on mechanical, electrical, and chemical engineering, which may profit greatly by the additional support of the departments of chemistry and physics.

Such a cooperative enterprise may best be organized and administered by a committee consisting of the separate department heads, with one delegate to take care of the administrative detail. This member may be responsible for scheduling, for teaching and for coordinating the various courses into an integrated curriculum.

As a most effective means of keeping informed on the educational needs of industry, the services of an advisory council should be appreciated. Such a council of outstanding industrial experts may render an invaluable contribution through occasional meetings with the group administering this program, and should be equally concerned with the formal program of instruction as well as with basic research. If the program leans heavily toward research, it is essential that this advisory council comprise the best research talent obtainable, to advise on this work.

When research, regardless of sponsorship, supplements the teaching program by providing an opportunity for fundamental research, a substantial research program should be encouraged. This may be integrated to permit excellent research training for graduate students, and at the same time be of great benefit to the plastic industry. Support may be obtained as fellowships, independent grants, industrial or government sponsored research contracts. Considering the field of polymeric materials and the early state of the art, interest in support of this type of research may be expected to continue.

(Next page please)

CONCLUSION

It may bear repeating that the main purpose of this paper is to acquaint the engineering teaching profession with the opportunities in this new field of plastics engineering education and to provide a guide for the development of a well rounded program of instruction and research. On the other hand, industry may be pleased to recognize the possibilities and desirability of such training, and the practising plastics engineer may be interested to make comparison between his own background and that recommended here. Last, but not least, if this article may help young men to a more intelligent choice of plastics engineering as a career, it will have served one very worth while purpose.

L. F. Rahm, Chairman
for the
Educational Committee
of the
Society of Plastics Engineers.

COURSE DESCRIPTIONS

(1) PLASTICS TECHNOLOGY

(An undergraduate course open to seniors)

This is an orientation course including both natural and synthetic polymers and considers composition, molecular structure, and chemical processes involved in production of such materials as well as modification for use in such end products as molded plastics, laminates, plywood, adhesives, elastomers, coatings, and textiles. The fabrication or forming processes are considered as well as the processing or manufacturing equipment. The subject of testing, test methods, evaluation, and engineering properties of plastics are included, as well as end use applications of materials.

(2) PLASTICS LABORATORY

(An undergraduate course open open to seniors)

This course includes so far as possible the making of a few typical resins, and the processes of modification by use of fillers, plasticizers, etc., through operations of mixing, roll milling, compounding, and calendering. Included are the various methods of molding such as compression, transfer, injection, extrusion, blowing, casting, and low pressure, so far as equipment permits. Paper, linen, and glass cloth laminates are included. Time and equipment permitting, plywood, films, filaments, coatings, and adhesives are to be included. All production or prosessing of materials is done for the purpose of evaluation. Testing methods and famaliarity with A. S. T. M. standards are considered an important aspect of the course.

(3) HIGH POLYMER CHEMISTRY

A theoretical study of the mechanism, kinetics, and thermodynamics of macropolymerization; also a study of structure, size, and shape of polymer molecules and properties of polymer solutions, as well as physical properties of elastomers and plastics.

(4) PROPERTIES OF PLASTICS

This course includes theory of testing and critical examination of testing techniques, equipment, and A. S. T. M. standards. It mainly concerns the correlation of composition and structure with engineering properties of materials. It includes a study of environmental conditioning, and study of effects of types of loading on strength, elasticity and plasticity in evaluation of materials.

(5) CHEMICAL ENGINEERING OF HIGH POLYMERS

This includes an analytical study of the physico-chemical principles underlying the industrial scale manufacture of the more important types of materials. It also includes consideration of the raw materials and industrial processes for elastomers, thermoplastics, and thermosetting resins from the viewpoint of the basic unit operations and processes involved, such as addition, condensation, and emulsion polymerization.

(6) ELECTRICAL MEASUREMENTS

Distinct from test methods, this course embraces a theoretical and practical study of measurement circuits and related components, including applicable A.C. bridge methods, resonant cavities, transmission lines, and supplementary apparatus over a wide range of frequencies.

(7) PLASTICS DESIGN

Beginning with Standards and Specifications this course is primarily concerned with application of materials with special regard to engineering design of plastics products, design of direct molding or fabricating equipment, and to a lesser extent, the design of the basic processing and operating equipment. Industrial design may be included incidentally.

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Miami Valley

(Continued from page 2)

plastics group for discussion and fellowship among those connected with the plastics industries in the Dayton area. It is interesting to note that of the seven original men meeting, five are still active members of the present S.P.E. group.

On December 9, 1943 a constitution and by-laws were approved by the Miami Valley Plastics Engineers. Officers for the new group were H. J. Kasch, Jr., Chairman; A. J. Barron, Secretary and Treasurer; B. C. Stupp, Assistant Secretary and Treasurer. The charter members to this organization numbered ten.

During the following eighteen months, the local group carried out its own program independently of S.P.E., although the S.P.E. and the Miami Valley Plastics Engineers were mutually interested in each other. At the regular monthly meeting on April 5, 1945, Mr. William Hoey, S.P.E. representative, spoke to the members, outlining the S.P.E. National and Sectional Organization, and discussing methods of affiliating with that body.

During the month of April, mail balloting showed decisive approval for joining the National Organization of S.P.E.

The Miami Valley Section of S.P.E. thus became a reality in July 1945 with 41 members, and the following officers: R. G. Chollar, National Cash Register Company, President; B. C. Stupp, Delco Products Division, Vice President; M. V. Kemper, presently associated with Improved Paper Machine Company, Secretary and Treasurer.

The section has steadily progressed, and at present has 82 members on the roster. The membership now includes men from Dayton, Cincinnati, Urbana, Springfield, and adjacent areas. An indication of the interest in the group is the fact that a meeting in either Dayton or Cincinnati means a sixty-mile drive by members living in the other city and a good percentage of the out-of-towners always are on hand. Since the majority of the members are from Dayton and Cincinnati, the meetings are usually held mid-way between, or alternated between the two cities.

An active Program Committee, presently headed by W. F. Oelman, Standard Molding Corporation, has fostered the enthusiasm of the group with interesting social and technical meetings. For instance, the three meetings to date of the 1948-1949 season were composed of one social-technical gathering, one technical meeting in which a panel discussion was held regarding the merits of thermoplastics and thermosetting materials, and one dinner meeting with Dr. M. H. Bigelow, Director of Technical Sales, Plaskon Division, Libbey-Owens-Ford Glass Company, speaking on "The New Plastics".

Reminiscing with a few of the old-timers in the Miami Valley Section brought to light the interesting observation that Dayton probably was first in any large-scale use of Dr. Baekeland's then new material later known as Bakelite. The experimental laboratories of V. G. Apple, it was stated, conducted the pioneering and development on a starter housing for the Model "T" Ford, and late in 1916, parts were molded at Kurz-Kasch, Inc.

The Miami Valley Section takes pride in the knowledge that the first one-ton order for Bakelite was processed by a company still active in the plastics industry, and one of those to whom we are indebted for the formation of the present S.P.E. group.

PS: Don't forget . . . 5th National SPE annual conference, Bellevue Stratford Hotel, Philadelphia, January 19-21, 1949.

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The SPI Reinforced Plastics Division is the new name for the former SPI Low-Pressure Industries Division announces The Society of The Plastics Industry, Inc.

As the result of an industry vote, the Steering Committee of this group has authorized this change. The plastics products covered will remain essentially the same.

It was also announced that the Fourth Annual Technical Session of the Reinforced Plastics Division will be held, as in former years, at the Edgewater Beach Hotel in Chicago, Illinois on January 12, 13 and 14, 1949. An exhibit will be included in the program.

Robert J. Brinkema of Egmont Arens, New York City, is General Chairman of the SPI Reinforced Plastics Division. Program Chairman for next January's meeting is Harold Freeman of American Cyanamid Co. in New York, and Leonard Meyer of Western Products, Inc., Newark, Ohio, is Chairman of the Exhibit Committee.

NATIONAL CONFERENCE COMMITTEES

The Fifth National Conference of the Society will be held at the Bellevue-Stratford Hotel in Philadelphia on January 19-21, inclusive, from 9 A. M. to 5 P. M. on Wednesday and Friday and from 9 A. M. to 12 noon on Thursday. A luncheon is scheduled on Thursday afternoon followed by the National Annual Business meeting.

The key note of the conference is "Technical" and the committee is endeavoring to sell conference space to each company so that they might have technical representation at this national affair. They hope in this manner to have gathered together the best possible technical knowledge and men for the engineering membership of the Society. In this way the individual problems of the plastics industry can be solved in these technical discussions.

The committee in charge of the conference is as follows:

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E. NEW ENGLAND

By GEORGE E. PICKERING

The November meeting of the Eastern New England Section of The Society of Plastics Engineers was held on Thursday, November 4, 1948 at the Hotel Puritan which is on the corner of Commonwealth and Massachusetts Avenue, Boston, Mass. Dinner was served at 7:00 p. m. Cocktails were available at the bar in the Banquet Room.

The speaker of the evening was Mr. Edward W. Vaill, who talked on "Ram Transfer Molding". Mr. Vaill is a technical representative of the Bakelite Corporation and has had many years experience in the plastics industry in general — transfer molding in particular. His talk was of interest to everyone.

We would also like to announce our December meeting which will be held on December 2, 1948. The speaker for this occasion will be Mr. John A. Kavanagh of Standard Tool Company in Leominster, Mass., who will speak on the subject "Advantages of Good Molds for Good Molding". Details of this meeting will be published at a later date.

The October meeting of the Society was held on October 7th as scheduled. Unfortunately, however, we were unable to have our original speaker, Mr. John A. Koons, due to conflicting dates. Arrangements are underway to have Mr. Koons address the Society later in the year. Your Secretary substituted with some movies and a talk on the Atomic Bomb Tests at Bikini. Despite some difficulties with the projecting equipment, we seemed to have gotten the point across.

Pass the word concerning our activities along to other eligible persons. Invite them to join us at the next meeting.

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W. NEW ENGLAND

By F. J. DONOHUE and G. MARTIN

The Western New England Section held its October meeting at the Hotel Sheraton on October 6th. This meeting was well attended and the members listened to two very interesting talks.

Mr. John Irish, Assistant to the Managing Director of G. Herring Pty, Ltd., Roseberry, Sydney, Australia talked on "The Australian Plastics Industry". Mr. Irish gave us a brief but concise cross-sectional view of the molding industry in Australia and its relation to general economic conditions there. He pointed out that because of the smaller population, the market is necessarily more restricted than in this country. There is also a greater amount of proprietary and departmental molding than in the United States. It appears that the technology is well advanced and in keeping with best molding practices elsewhere. Equipment costs are much lower than in this country.

Following this, Mr. John A. Koons of Process Mold Company, Detroit, Michigan spoke on "Pressure Cast Beryllium Cavities and Cores" and gave a wealth of information on the use of different, new pressure casting techniques and the newer beryllium alloys in the making of cavities and cores for both injection and compression molding.

These alloys and this pressure casting technique have been most widely employed in the production of injection molds. Cavities made in this manner have been found satisfactory for long molding runs and are reported superior to conventional machined cavities from tooled steel in that the beryllium alloy is hardened completely in the heat treating process.

Costs of the molds made by this technique are, in general, approximately equivalent to those of steel when produced by the usual cold hobbing practice. Special precautions must be observed in the preparation of hobs intended for the production of these cast beryllium copper cavities. Mr. Koons displayed a great many interesting molded parts produced from these molds, most of which were in thermoplastics.

This meeting proved to be one of the most interesting and informative that the Section has enjoyed, thanks both to the excellence of the speakers and the cooperative attention and discussion provided by the members.

NEW ORLEANS

By PAUL F. OSWALD

The meeting was held in the display room of Plastics Productions, Inc., 322 Tchoupitoulas Street at 8:00 P. M., called to order by the President and conducted in its entirety by the President, Dr. H. A. Levey.

This meeting was the first held after the summer suspension of meetings.

A discussion of the by-laws for the local Chapter as previously proposed and mailed to all members was dispensed with at this meeting.

Dr. H. . Levey announced the obtaining of a qualified speaker from the United States Southern Regional Research Laboratories for the annual convention of the Louisiana Engineering Society in February, 1949. Mr. Ralph F. Chambers of Plastics Productions, Inc., stated that his firm would supply some very attractive and impelling plastic displays to be used during the February meeting of the Louisiana Engineering Society. This display will be executed for the main purpose of interesing some members in the Society of Plastics Engineers.

Two proposed subjects for the speaker are "Plastics as Materials

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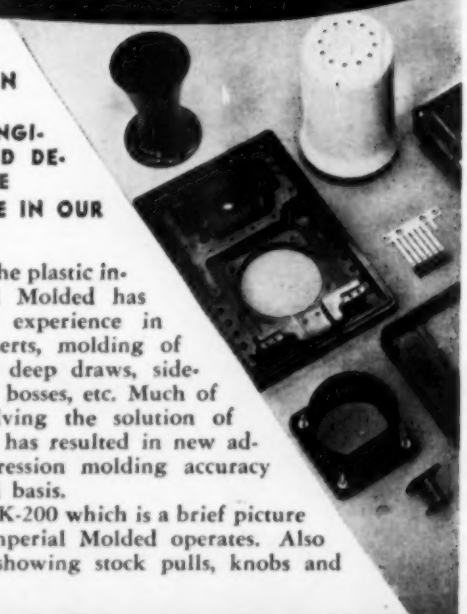

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for Construction" and "Plastics in Constructions Applications" which will be discussed at the November meeting.

Dr. Levey reported on his trip to New York and his visit to the annual Plastics Exposition, showing samples and literature which he had brought back for the members' information. He mentioned the new plastics and equipment which were on display and discussed the Exposition in general. He spoke previously of his attending a meeting of the board of the Society of Plastics Engineers while in New York.

The meeting adjourned and refreshments were served by the host of the evening.

PLASTICS PRODUCTIONS, INC. IN NEW LOCATION

Mr. Ralph F. Chambers, President of Plastics Productions, Inc., formerly located at 1602 Pauger Street, announces their moving to larger quarters at 322 Tchoupitoulas Street, and a change in officers of the firm. Mr. Aruns Callery was elected to serve as Vice-President and Mr. William Huger as Secretary-Treasurer. Mr. Huger, a well known New Orleans business man, is now actively engaged at their new plant.

Mr. Erwin Reveri, former production superintendent of one of New York City's largest fabrications of plastics, has been appointed to that position at Plastics Productions, Inc. He brings to New Orleans the experience of many years in the plastics field.

SECTION NOTES

NORTHERN INDIANA met at the GE Squares Club in Fort Wayne, on November second.

CHICAGO joined with SPI for a November meeting at the Builders Club to hear Mr. George D. Bieber, Midwest Sales Manager for the Koppers Company speak on "Plastics from Coal."

NEWARK heard "Responsibility for Design of Mold" from the 'User's Viewpoint", by C. M. Coe, of Shaw Insulator, and from the "Designer's Viewpoint", by Eric Gronemeyer, of Sameric Engineering Co. The meeting was held at the Newark Athletic Club on the tenth.

The Golden Gate Chapter of the SPE held its dinner meeting on the 16th of November at the Del Mar Restaurant in San Francisco at 6:30 P. M.

Mr. G. W. Blessing, of Electronics Processes Corporation, spoke on "The Applications of Electronics to Plastics Processing". Mr. J. L. Sherk, of Dow Chemical Company, followed with a talk on "Merchandising". The usual discussion period prevailed.

Klippings from Kozy

By WALTER KOSY

DR. C. W. SELHEIMER has left the U. S. Rubber Company where he was in charge of selection and training of personnel in the Tire Department Division to become Professor of Chemical Engineering at the Illinois Institute of Technology. He is, at present, Chairman of the Detroit Plastic and Rubber Group and was formerly a director of the Detroit Chapter of the SPE. Previous to his employment at U. S. Rubber, he taught at Wayne University where he organized the Plastic and Rubber Laboratory. Best wishes and congratulations, Doc, from all of us.

As of October 1, 1948, JOHN HOUSTON has been placed in charge of the materials laboratory at Swedish Crucible Steel Company, Plastic Division, in Detroit. Johnny returns to Detroit from the East where he had been associated with Fisher Plastics and later, Improved Paper Machinery Corporation. Formerly he was Material Control Engineer with the Rubber and Plastic Laboratory of Chrysler Corporation in Highland Park.

LOUIS DEAK, JR., formerly with the Engeering Specialties Company as designer and engineer, is now associated with Nu-Engineering, Inc., in Ferndale in a like capacity. Nu-Engineering, Inc., are die and moldbuilders for the Plastic and die-casting industry.

Our thumbnail sketch:

This month we present a scholarly individual whose modest and friendly manner have made him a host of friends in Detroit. Born in Vienna and educated there, he sports a Ph.D. from the University of Vienna where he was associated with Dr. H. F. Mark, world famous plastic authority now at Brooklyn Polytech.

In 1935 he joined the European branch of a large American manufacturer of resins and chemicals where he worked as a research chemist. Late in the thirties with war-clouds looming in Europe, he followed a call to the University of Santo Domingo in the Dominican Republic. He was Director of Laboratories, for physics, medicine and pharmacy.

In 1941 he left the West Indies for Detroit and again became associated with the same firm he had worked for in Europe. He has never gotten away from the university atmosphere, however, and still teaches an evening course in plastics at the Detroit Institute of Technology.

He is the author of more than 20 scientific and technical papers. In the SPE he is at present a Director and Vice-President of the Detroit Chapter. Who is he? *(See Back Cover)*

PHILLY HOLDS AUCTION

By R. B. BISHOP and W. O. BRACKEN

The Philadelphia Section had on October 19, 1948 an interesting meeting and we think the other sections might like to use the same thing. We held an auction. The auctioned materials, all plastics, were donated by the plastic concerns in the area. The variety of products included, plastic jewelry, television lens, radio, a 2 pen desk set, sunglasses, night light, pencils, plastic bar accessories, garment and pillow case bags, vanity set, fibre waste paper basket and records.

The membership certainly thought a lot of these items as was evidenced by their spirited bidding. When the entire proceedings were over the section was richer by $95.70 which is to be used for local prizes in the Prize Paper contest.

An address on the "Practical Application of the Theoretical Aspects of the Closed Mold Method of Molding Thermosetting Materials" was given by Mr. E. W. Vaill, Technical Representative of the Bakelite Corporation.

The talk was very informative and interesting and pointed out the variables encountered in the closed mold method of molding thermosetting plastics. Mold design calculation of molding pressures and gating variables were described. The talk was supported with numerous slides of practical molding applications.

The entire Section was deeply appreciative of Mr. Vaill who gave an impressive talk, after being called upon to fill the speaking engagement on very short notice.

ST. LOUIS

By TODD CLARK

The Saint Louis Section of SPE was all keyed up to enjoy as their guest speaker our National President, Harry DuBois, at the monthly dinner meeting last night, Melbourne Hotel.

Due to unexpected illness in the Du Bois family, the visit by our Prexy was cancelled.

Our guest speaker, taking Mr. Du Bois' place on our program was Mr. Joe Tannaka, a local consulting engineer in industrial design. Mr. Tannaka's firm is Designers and Builders Associates. Mr. Tannaka gave us some excellent advice to follow in designing and developing products in plastics.

DETROIT

"The Buyer and Good Plastic Merchandising"

By PAUL B. LILLIS

John Sasso, Production Editor of BUSINESS WEEK, spoke on "The Buyer and Good Plastic Merchandising" at the October 15, 1948 meeting of the Detroit Section of the S.P.E. The meeting was well attended by merchandisers and buyers in the Detroit area.

On exhibit in the meeting room, there were many outstanding examples of recent developments in plastics. There was also a display of the articles that won the Seventh Modern Plastics Competition "For Meritorious Application of Plastic."

In the beginning, John Sasso stated that the industry, plastic, is almost back in prewar stride. With the chemical shortages about over, there are big years ahead. By the end of 1948, there will have been consumed 1.6 billion pounds of material, which is double the consumption in '47 and triple that of '45.

Molders alone did a 162 million dollar business in 1947, which was 16 million more dollars than in 1946. This was done by a total of 1,250 modlers and 16,000 machines.

"The plastic industry can be anything you want to make it. The selling of plastics must be based on: (1) adequate knowledge of materials, their good and bad properties; and (2) an ability to translate that knowledge into an honest evaluation of plastics in a particular application."

"As merchandisers, you have a right to expect that manufacturers will help you in this job. You should expect them to do an aggressive and realistic job of merchandising at their level of the industrial picture."

After explaining the various types of plastics materials, the audience was asked to remember that "plastic" is a family name like wood, metal, and fabric. As a merchandiser or buyer you should know what kind of plastic is used.

Read a little and know the basic types and how they behave. Don't expect miracles of plastics, but utilize their good characteristics.

"Thus, successful buying demands an intuitive sense of what has customer appeal plus knowledge of how a product will be used and how it will stand this use and abuse. This plus knowledge of plastics products depends upon a buyer's realization of what different plastic materials can and cannot do—how well they perform in any particular consumer merchandise. A buyer can get the facts on the eleven different plastic materials he is likely to encounter by:

Learning the advantages of each plastic. Studying a product's informative label, when available. Testing a product with simple "use" tests.

"Consumer advertising of plastics products, publicity in newspaper and popular magazines, and a backlog of consumer satisfaction with successful plastics products have made the public aware of the wide field of application for plastics and receptive to the purchase of articles made from these materials.

"There are three ways a buyer can make this advertising, these write-ups and this consumer satisfaction work for him to sell plastics for profit.

"In retail store advertising: Retail store advertising of plastics products should indentify the type of plastic being used and, when possible, give the trade name of the plastic.

"In the use of informative labels: Labels, when used, are on hand when a customer is serving herself, when she is being served by a clerk, when she gets the plastic product home. It presents in black and white—not to be forgotten or misinterpreted—the facts on the type of plastic, its trade mark, advantages and care.

"In sales personnel training: 'What material is this?' 'How can I care for it?' are questions to which salespeople must have the answers to sell plastics profitably."

N. W. PENN NOTES

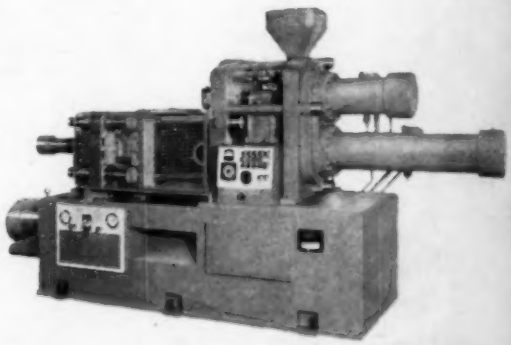
By PAUL ROCHE

The Northwestern Pennsylvania Section is proud to announce the addition of a three brother team to its membership roles. Several months ago Lee Berry, President, Berry Tool & Machine Co., and Treasurer Quinn Berry (Plastics) joined the SPE. More recently his brothers Robert (Superintendent, Berry Tool & Machine Co.) and Chester (Designer, Quinn Berry Plastics) have become members. The combined talents of the Berrys will represent a pleasing advancement in the strength of this section.

The activity of The Louis Marx Co. in the plastic molding field has undergone a drastic increase over the past several months. This company has added several Reed Prentice injection molding machines to its facilities at Erie and Girard, Penna. Vincent Juliante, Superintendent, represents this company in SPE activity.

The extension of mechanical equipment at Quinn Berry Corp. over the several years of its existence has been characterized by the frequent addition of injection molding machines. That same fact applies for 1948, but more newsworthy is the announcement that this plant now boasts an airplane as well to bolster its service. In active charge of that department are James Quinn (President) and Lee Berry (Treasurer).

Answer to Thumbnail Sketch: Dr. Ernest Storfer, Reichold Chemicals, Inc.



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